



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/777,442

02/12/2004

Eric C. Humphries

102491-100

4785

27267

7590

11/21/2008

WIGGIN AND DANA LLP  
ATTENTION: PATENT DOCKETING  
ONE CENTURY TOWER, P.O. BOX 1832  
NEW HAVEN, CT 06508-1832

EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT

PAPER NUMBER

2837

MAIL DATE

DELIVERY MODE

11/21/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/777,442	<b>Applicant(s)</b> HUMPHRIES ET AL.	
	<b>Examiner</b> JEREMY LUKS	<b>Art Unit</b> 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,8,9,11-15,18,19,22,23 and 26-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15,18,19,22,23 and 26-28 is/are allowed.
- 6) ☐ Claim(s) 1,4,5,8,9,11-14 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by Christensen (5,984,044). Christensen teaches a panel assembly (Figure 1, #16, 18) for a traffic noise barrier wall of the type including opposing slots formed in pairs of vertically-mounted posts (12 – slot are clearly seen), the panel assembly comprising: a sheet (16) of material having top, bottom, and side edges forming a perimeter of the sheet, said sheet (16) having a sheet thickness that is less than each of said first slot width (of post #12) and said second slot width (of post #12) (Clearly seen in Figures 4 and 4A, as panel #16 fits into frame #18, and frame #18 fits into the slots), and a frame (18) disposed along at least a portion of the perimeter of the sheet (see Figure 3), wherein side portions of the frame (18) include a base portion (could be the middle of U-shaped frame portion #18, from which perpendicular flange portions extend) disposed along one of the side edges of the sheet (16) and first and second flange portions (clearly seen as described above, and completing the U-shape configuration of frame #18) projecting outward from the base portion on opposite sides of the sheet (16) to define a channel between said first and second flange portions for capturing at least a portion of the side edges of the sheet (16) (best seen in Figures 4 and 4), said base portion (could be the

Art Unit: 2837

middle of U-shaped frame portion #18, from which perpendicular flange portions extend) having an external thickness that is substantially equivalent to said first and second slot widths (clearly seen in Figure 3-4A, as frame element #18 occupies the entire widths of the slots), and said channel (portion of frame #18, occupied by panel #16) having an external thickness that is less than said first and second slot widths (clearly seen in Figures 4-4A).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (5,984,044).

With respect to Claim 1, Christensen teaches a traffic noise barrier wall (Figure 1) comprising: a first vertically-mounted post (12) including a first slot disposed therein (clearly seen in Figure 1), the first slot extending lengthwise along a side of the first post (12) and having a first width; a second vertically-mounted post (12) spaced apart from the first post (12), the second post including a second slot disposed therein (clearly seen in Figure 1), the second slot extending lengthwise along a side of the second post (12) and having a second width; and a first panel assembly (16, 18) extending between the first and second posts (12) and into both said first slot and said second slot (see

Art Unit: 2837

Figure 1), the first panel assembly (16, 18) including: a sheet (16) of material having top, bottom, and side edges forming a perimeter of the sheet (Col. 3, Lines 1-4), said sheet (16) having a sheet thickness that is less than said first slot width (See Figures 4 and 4A), and a frame (18) disposed along at least a portion of the perimeter of the sheet (16), wherein side portions of the frame include a base portion (middle portion of #18 arranged along the side edge) disposed along one of the side edges of the sheet (16) and first and second flange portions (portion of #18 perpendicular to and extending from the aforementioned base portion, completing the U-shape of #18) projecting outward from the base portion on opposite sides of the sheet (16) to define a channel between said first and second flange portions for capturing at least a portion of the side edges of the sheet (16) (clearly seen in Figures 3 and 4), said frame (18) having an overall thickness that is substantially equivalent to said first and second slot widths adjacent said base portion (clearly seen in Figure 3-4A, as frame element #18 occupies the entire widths of the slots), said first and second flange portions each having a thickness, said overall thickness of said frame (18) being substantially equivalent to a sum of said thicknesses of said first and second flange portions (portion of #18 perpendicular to and extending from the aforementioned base portion, completing the U-shape of #18) and said sheet (16) thickness (See Figures 3-4A). Christensen fails to explicitly teach wherein said thickness of each of said first and second flange portions is about 26 to 45 percent of each of said first and second slot widths. It would have been an obvious design choice to provide wherein said thickness of each of said first and second flange portions is about 26 to 45 percent of each of said first and second slot widths, since

Art Unit: 2837

such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955). Further, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. In re Aller, 105 USPQ 233.

With respect to Claim 4, Christensen teaches wherein the sheet has a thickness less than a thickness of the first flange and less than a thickness of the second flange (See Figures 1 and 4, 4A).

3. Claims 5 and 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (5,984,044) in view of Neumann (6,253,872). Christensen is relied upon for the reasons and disclosures set forth above. Christensen further teaches the outer surfaces of a frame (Figures 1, 4 and 4A; #18) disposed inside a cavity (formed by H-configuration of posts #12). Christensen fails to teach wherein an elastomeric gasket is disposed between the outer surfaces of the side portions of the frame and surfaces forming the channel, and wherein an elastomeric gasket covers at least a portion of the side edge of the sheet captured within the channel. Neumann teaches wherein an elastomeric gasket (Figure 2, #5) is disposed between the outer surfaces of the side portions of the frame (ribs #4 could be a frame) and surfaces forming the channel (see channel formed in rails #2), and wherein an elastomeric gasket (5) covers at least a portion of the side edge of the sheet (2) captured within the channel (see channel formed in rails #2). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Christensen as modified, with the

Art Unit: 2837

apparatus of Neumann to increase support for the panel within the cavity. The Examiner also recognizes, that such a gasket would inherently further dampen sound.

4. Claims 9, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (5,984,044) in view of Johnson (7,063,184).

With respect to Claim 9, Christensen is relied upon for the reasons and disclosures set forth above. Christensen further teaches wherein the first and second flanges (Figures 1, 4 and 4A, outer portions of #18) are coupled to a surface of the base portion (middle portion of #18). Christensen fails to teach wherein the base portion is disposed outside the entire perimeter of the sheet, and the channel formed by the base portion and the first and second flanges capture a portion of each of the top, bottom, and side edges of the sheet. Johnson teaches wherein a base portion (Figures 17, 18, #143) is disposed outside the entire perimeter of the sheet (30) (Col. 11, Lines 35-48), and the channel formed by the base portion (143) and the first (141) and second (142) flanges capture a portion of each of the top, bottom, and side edges of the sheet (30). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Christensen as modified, with the apparatus of Johnson to increase the rigidity of the structure and better protect the sheet member.

With respect to Claim 11, Johnson teaches wherein the first (141) and second (142) flanges disposed on each of the top, bottom, and side edges of the sheet (70) are coupled to a surface of the base portion (143)

With respect to Claim 14, Johnson teaches wherein the frame (60B) extends along the entire perimeter of the sheet (30) and captures at least a portion of each of the top, bottom and side edges of the sheet (30).

5. Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (5,984,044) in view of Johnson (7,063,184), as applied to claim 9, and further in view of Donnelly (2003/0019170). Christensen and Johnson are relied upon for the reasons and disclosures set forth above. Christensen further teaches a second panel assembly (Figure 1, #16') extending between the first and second posts (12). Christensen and Johnson fail to teach wherein the frame of the first panel assembly includes at least one of a protrusion and a recess disposed on the base portion for interlocking with the second panel assembly. Donnelly teaches wherein the frame of a first panel assembly (20) includes at least one of a protrusion (40) and a recess (30) disposed on a base portion for interlocking with the second panel assembly (20) (Page 2, [0043]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Christensen as modified, with the apparatus of Donnelly to interlock adjacent panel members, increasing the overall strength and rigidity of the apparatus.

6. Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen (5,984,044) in view of Pickett (4,214,411). Christensen is relied upon for the reasons and disclosures set forth above. Christensen further teaches an acoustic sheet (Figure 1, #16). Christensen fails to teach wherein the sheet is formed from a transparent material. Pickett teaches wherein an acoustic sheet (2) (Col. 2, Lines 61-



Art Unit: 2837

66) is formed from a transparent material (Col. 2, Lines 59-66). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Christensen, with the apparatus of Pickett to provide an acoustic noise barrier sheet that will not block the view of travelers on the road which the noise barrier surrounds, while still functioning as an acoustic barrier.

***Allowable Subject Matter***

7. Claims 15, 18, 19, 22, 23 and 26-28 are allowed.
8. The following is an examiner's statement of reasons for allowance:
  - The Examiner found Applicant's arguments, filed on 7/21/08, persuasive, and therefore considers that the references of the Prior Art of record fail to teach, or suggest any obvious combination of the limitations discussed in the previous Office Action, and further comprising the limitations of **(With respect to claim 15)** a base portion having a substantially triangular cross-section; and the first and second flange portions extending from an apex of the base portion.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

9. Applicant's arguments filed 8/5/08 have been fully considered but they are not persuasive. The Examiner considers the obvious combination of Christensen, Neumann, Johnson, Donnelly and Pickett to teach all of the limitations as claimed by Applicant.

10. Applicant's assertion that Christensen's protective sleeve 18 fails to teach or suggest a base portion having a thickness substantially equivalent to the first and second slot widths and a channel having a thickness that is less than the first and second slot widths as claimed in independent claim 1 is incorrect. The base portion of frame #18 encompasses the entire width of the slots in posts #12. Further, the thickness of the channel in frame #18 which is occupied by sheet #16 does in fact having a thickness that is less than the first and second slot widths of posts #12, as seen in Figures 1 and 3-4A. If it did not, the sheet/frame assembly #16, 18 could not fit into the slots.

***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 2837

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEREMY LUKS whose telephone number is (571)272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on (571) 272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/777,442

Page 11

Art Unit: 2837

/Jeremy Luks/

Examiner, Art Unit 2837

/Walter Benson/

Supervisory Patent Examiner, Art Unit 2837